

TWO MAN RELOAD OPERATIONS FOR M270 **LAUNCHER** **Do Not Use With the M270A1**

WARNING

Two man reload operations can't be done to ARTEP 6-398-30-MTP standards due to time and safety considerations. This operation should only be used as a last resort. You must use extreme caution with a two-person reload. **NOTE:** If possible use ammo personnel that are assigned to the reload points to assist the reload or cross train other personnel with the battery to assist with the reload operations. However for planning training exercise purpose average reload times for two persons should be accomplished in 17 minutes or less. A two person reload operation should only be used as a last resort.

SAFETY NOTE

Promoting training safety at any time helps preserve vital resources and protect our soldiers. Practicing safety enhances the soldier's ability to perform the task safely. Human error is a definite cause of more then 80 percent of all accidents. Reducing human-error accidents should be the up most priority for savings human lives and limbs. Realistic training can be done safely through proper supervision.

NOTE

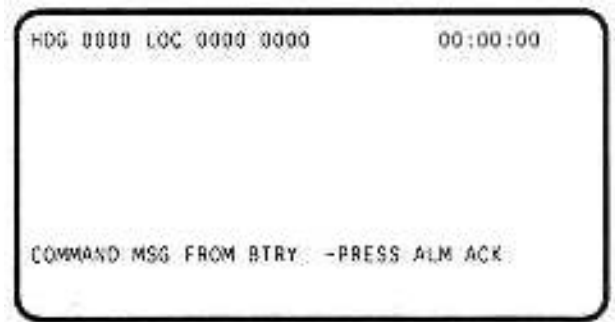
Submit any changes and errors, to CRUTZ HALL MLRS F.A. SCHOOL, FT. SILL, OK
ATTN: NCOIC

TWO MAN RELOADING OPERATION (CONT)

WARNING

Hangfire rockets are dangerous. They can ignite and kill someone. Never unload an LP/C with a hangfire unless Hangfire Procedures (paragraph 4-25) have been performed.

(1) When the message is received, the alarm will sound and a command message received prompt will be displayed on the FCP.



(2) Press the ALM ACK key. The reload data and mission status message will be displayed. The reload data shall contain reload coordinates, weapon type(s), and the number of each weapon type to be loaded. If unload is specified in the command message, UNLOAD will be displayed instead of the weapon type and the number of weapons. If no change is specified in the command message, NO CHG will be displayed instead of the weapon type and the number of weapons. If a parking heading is included in the command message, the heading will appear after the LP/C 2 number of weapons, or after UNLOAD or NO CHG.



(3) Unless there is some reason you cannot comply with the command, press XMIT key. A mission status message will be sent and the message ready prompt will be erased.

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(4) If for some reason you cannot comply with the command, you must send a cannot comply message to the BTRY and/or PLT/TP. Refer to Mission Status Message (Volume I) for instructions on how to send a cannot Comply message.

(5) As soon as you receive your reload point coordinates and send your status message, drive to the reload point location.

TWO MAN RELOADING OPERATION (CONT)

g. Prepare to Reload. As the SPLL moves to the reload point and before you start to reload, check for the following conditions.

WARNING

Everyone who uses or rides in the SPLL must wear ear protection. Noise levels could cause permanent hearing damage.

(1) System has been set up according to the equipment startup checks and procedures given in Paragraph 4-3.

(2) CVC helmets are on.

(3) Carrier MASTER POWER/LAUNCHER INTERCONNECT switch is set to ON.

h. Parking the SPLL. When reloading site comes into view, watch for objects, which could interfere with reloading operations.

SECTION CHIEF (S/C)

WARNING

Always keep a shorting plug connected to a loaded LP/C. Remove Shorting plug only when you are going to connect a tested LLM Umbilical cable to the LP/C. Stray voltage could cause rocket to fire And kill someone.

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(1) As the LP/Cs to be loaded are approached, stop the SPLL. Unplug, but do not remove, your CVC helmet and then dismount from the SPLL. Check the LP/Cs for damage or unsafe conditions, which could prevent a safe resupply operation. Refer to ammunition (chapter 5), for identification, safety, inspection, and care and handling instructions for MLRS LP/Cs.

(2) Make sure the LP/Ca are in the proper position for loading. LP/Cs should be side by side. Front of LP/Cs should point away from SPLL.

(3) Move into position in view of the SPLL driver.

TWO MAN RELOADING OPERATION (CONT)

WARNING

Use extreme caution when moving the SPLL into position, there is no rear ground guide! NOTE: If possible use one of the Ammunition Crew at the reload point to assist in the ground guiding of the SPLL and to assist in the reloading operations.

(4) Using hand signals, guide SPLL into position for reloading.

(5) Park with SPLL at about 1/3-meter away from, and at about a 35 degree angle to the side of the LP/Cs. Stop the SPLL when the rear of the SPLL is about even with the most forward corner of the LP/Cs.

CAUTION

Setting handbrake with transmission in gear can damage the transmission or hand brake linkage

(6) When SPLL is in position, signal driver to move transmission range selector to neutral, set handbrake, and engage suspension lockout.

WARNING: THESE PROCEDURES SHOULDED ONLY BE CONDUCTED IF UNABLE TO MAINTAIN THE STANDARD THREE-PERSON CREW. TWO MAN CREWS ARE NOT RECOMMENDED FOR SUSTAINED SAFE OPERATIONS.

- Chief selects option from the boom control menu.

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- Chief verifies that the transmission range selector is in neutral position.
- Chief verifies that the handbrake is set.
- Chief verifies that the SLO is engaged.
- Chief dismounts vehicle and stands clear of the vehicle.
- Chief instructs the driver to press EXEC on the FCP and set the throttle to high idle.

TWO MAN RELOADING OPERATION (CONT)

CAUTION

Section chief does not exit to the rear or front of the vehicle until high idle is set.

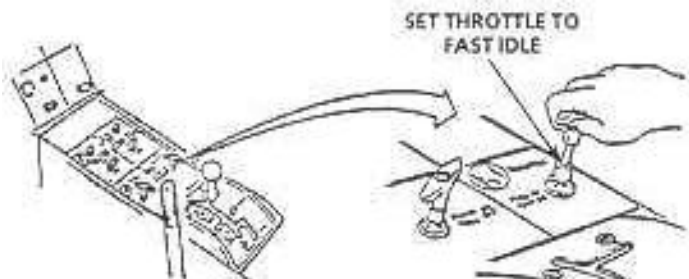
- Chief press EXEC on the FCP and wait for boom control light to come on the FCP.
- Driver exits the cab, moves to the rear of the LLM, removes the BC, and assumes the duty as the gunner for the rest of the reload.
- Chief UNLATCHES BOTH PODS AND unhooks the W19 and W20 cables from both pods.

NOTE: YOU WILL ONLY DOWN LOAD/UP LOAD ONE POD AT A TIME.

- * After reload is complete, driver assists chief with connecting cables to pods.

CAUTION: DRIVER DOES NOT LEAVE THE REAR OF VEHICLE UNTIL ALL CABLES ARE CONNECTED, PODS ARE LATCHED, AND INSTRUCTED BY CHIEF TO STOW THE LLM. THE CHIEF ENSURES THAT NO ONE IS AT THE REAR OF THE VEHICLE WHILE STOWING THE LLM.

(3) Set THROTTLE control
To fast idle (1200 to 1500 rpm). The
Engine alternator should be



charging the batteries.

(4) Make sure that the LAUNCHER INTERCONNECT switch is set to ON. Check that the carrier VOLTS gage is indicating in the upper 50 to 75 percent of the green zone. If VOLTS gauge is not indicating correctly, refer to Troubleshooting paragraph in Volume 1 of this manual.

TWO MAN RELOADING OPERATION (CONT)

(5) Unplug, but do not remove CVC helmet. Exit cab and move to the rear of LLM.

i. Unloading.

DRIVER

(1) While the driver is parking, select the BOOM CONTROL menu (paragraph 4-1)

HDG 0000 LOC 0000 0000 00:00:00
BOOM CONTROL
O:LLM RIGHT
1: LLM LEFT
2:LLM RIGHT REAR
3:LLM LEFT REAR
4:BOOMCONTMANUAL
SELECT NUMBER AND PRESS EXEC: ;

NOTE

The FCS shall inhibit all keyboard functions except the message menu and display status while in the boom control mode until the STOW key has been pressed.

(2) When parked, enter option number 1 for LLM LEFT. Press the EXEC key.

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NOTE

BOOM CONT indicator light on the FCP, and the ENBL indicator light on the BC do not come on right away. The lights come on after the LLM has moved to the selected unloading position.

TWO MAN RELOADING OPERATION (CONT)

(3) The BOOM CONTROL AZIMUTH RESOLVER and ELEVATION RESOLVER field will be displayed. If a LLM contains a missile with stored classified data, a weapon memory purge shall begin. If the purge is successful, you will not be aware of the purging process. If a failure occurs and the missile cannot be purged the prompt(s) WEAPON MEMORY PURGE FAILURE LP/C 1 and/or WEAPON MEMORY PURGE FAILURE LP/C 2 (indicating in which LP/C the failure occurred) will be displayed. If

a purge failure occurs, notify your S/C or PLT/TP immediately.

HDG 0000 LOC 0000 0000 00:00:00
BOOM CONTROL

AZIMUTH RESOLVER :+0000.0;
ELEVATION RESOLVER:+0000.0;
WHEN OPERATION COMPLETE PRESS LLM STOW

(4) When the LLM has moved to the selected unloading position, the BOOM CONT. Indicator light on the FCP will come on.

(5) Unplug, but do not remove CVC helmet. Exit cab and move to the left rear of LLM where the BOOM CONTROL (BC) is stowed.

WARNING

When latch handle is latched with LP/Cs loaded, The handle is under pressure. Make sure safety restraint hook is connected before unlatching handle. If hook is not

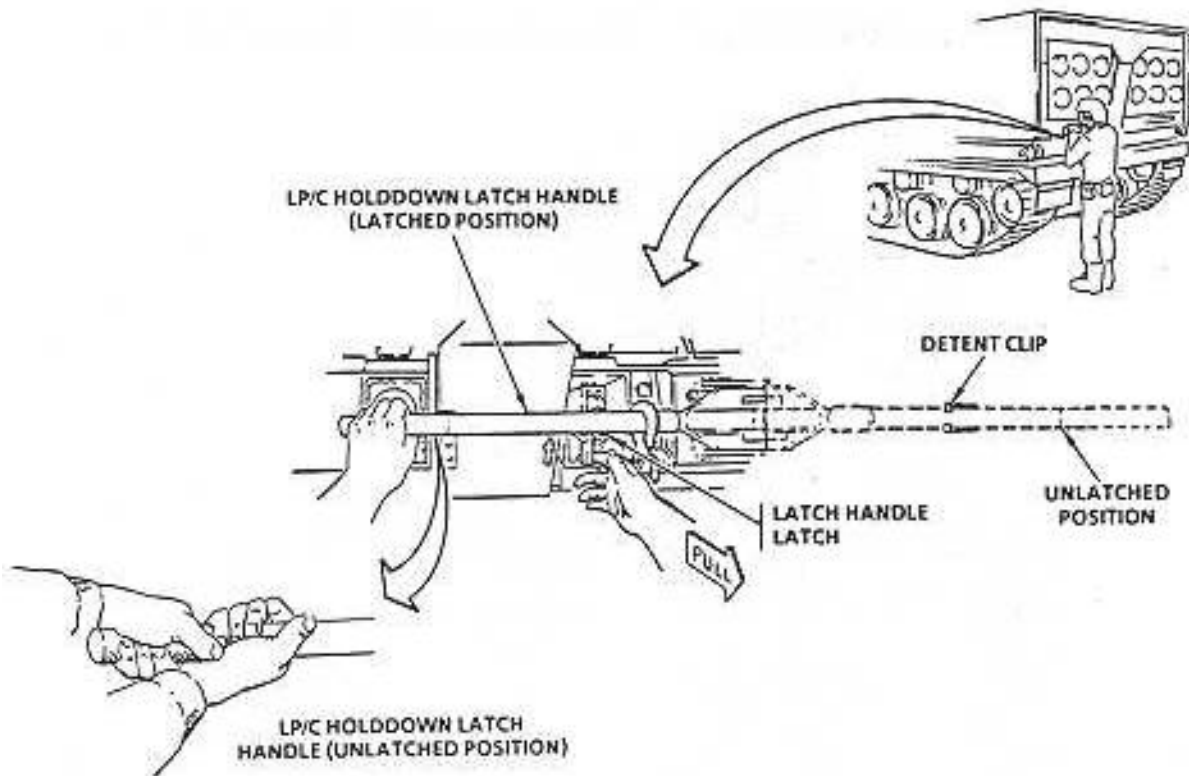
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connected, the handle can swing and cause bodily injury. Latch operator must be standing on the ground during latching/unlatching procedures and LLM position must allow this requirement. Bystanders must not stand in the path of the latch handle.

As quickly as possible unlatch and release one LP/C holddown latch handle latch. Disconnect the latch handle safety restraint hook. Swing holddown latch handle out and to the right until it snaps into place in detent clip. Repeat process for second LP/C.

TWO MAN RELOADING OPERATION (CONT)



S/C (at right LP/C) and DRIVER (at left RP)

WARNING

Beware of moving equipment. LLM is automatically turned to unloading position. It can also be turned by using the BC. Use care to avoid injury from moving equipment.

NOTE

Disconnecting and connecting the right and left umbilical cables should be done as quickly as possible. It may be necessary to do this while the LLM is raising.

- (1) Disconnect right and left umbilical cables from LP/Cs as follows.
- (2) Turn latches on umbilical cable access doors. Open doors and swing them out of the way.

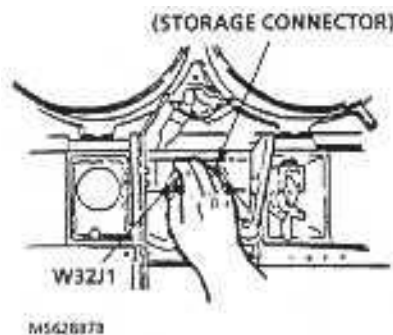
TWO MAN RELOADING OPERATION (CONT)

NOTE

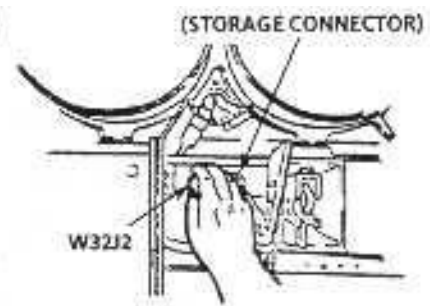
LP/Cs with two cable connectors require two umbilical cables. In this procedure, the words in parenthesis, (), apply only when loading, or unloading an LP/C with two cable connectors.

Connector covers (and storage connector) used on SPLL and LP/C umbilical cable connections are also shorting plugs.

- (3) Reach in and remove connector cover from connector W32JI (and storage connector) and W32J2 (and storage connector).



W32JI



W32J2

WARNING

When unloading an LP/C with an unfired rocket or missile, make sure the LP/C connector cover (shorting plug) that is attached to the LP/C is reconnected to the LP/C connector. Stray voltage can ignite rocket or missile.

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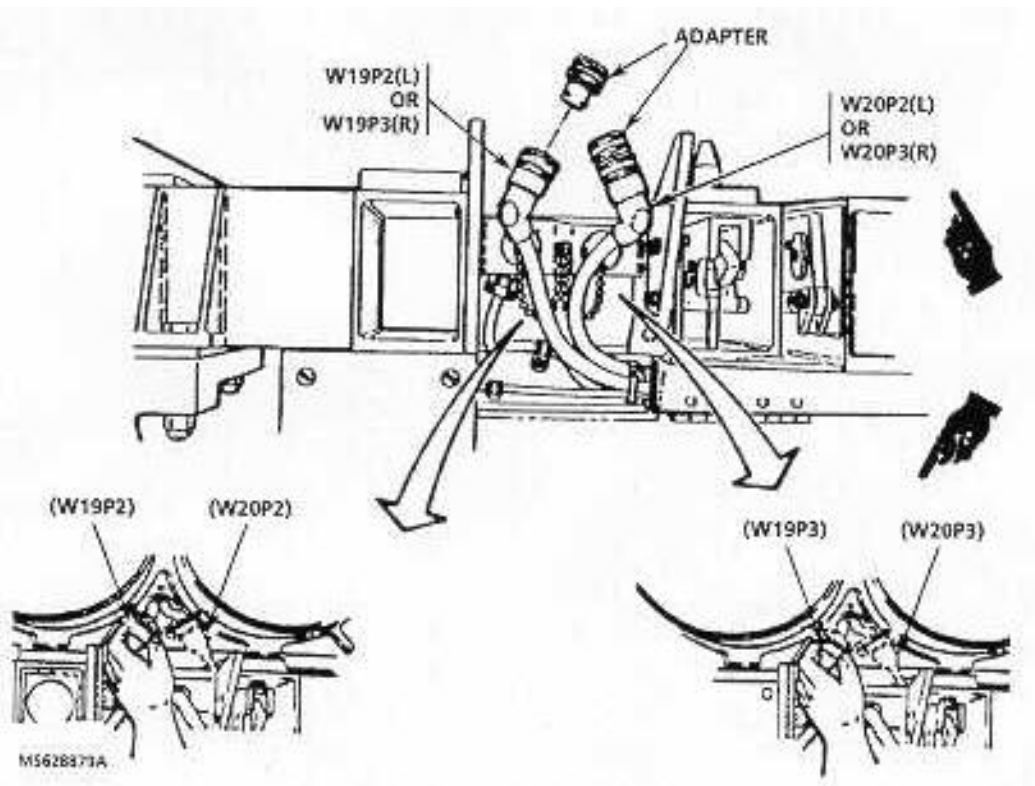
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CAUTION

When connecting or disconnecting umbilical cables, ensure that adapters are present on umbilical connectors. Umbilical cable lengths were determined with the adapters installed and connecting/disconnecting cables without adapters may damage the umbilical connectors.

TWO MAN RELOADING OPERATION (CONT)

(4) Use care not to disconnect the umbilical cable from the adapter. Disconnect umbilical cable connector W19P2 (and W20P2) and W19P3 (and W20P3) from LP/Cs. Replace LP/C connector covers (shorting plug) on LP/C connectors.

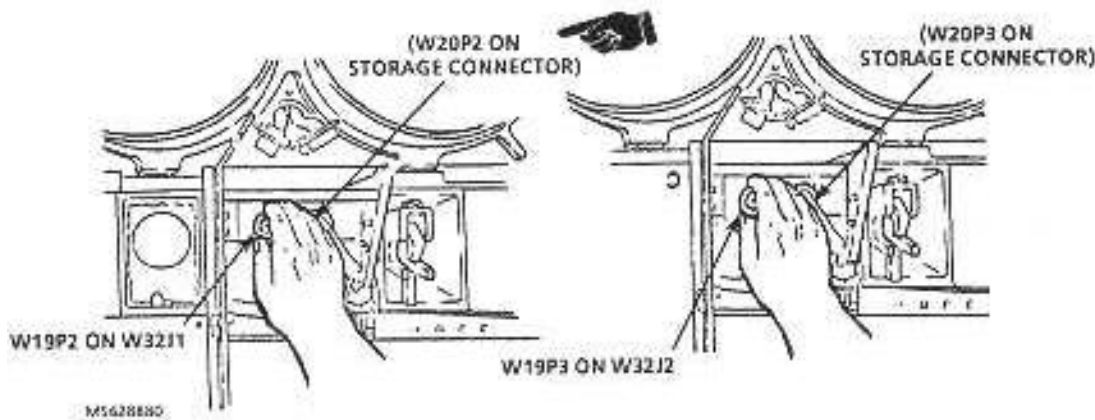


NOTE

LLM hoists and booms will not operate unless umbilical cables are connected to LLM connectors W32J1 and W32J2 (and storage connectors).

(5) Connect umbilical cable connector W19P2 (and W2OP2) to connector W32J1 (and storage connector) on the SPLL. Connect umbilical cable connector W19P3 (and W2OP3) to connector W32J2 (and storage connector) on the SPLL.

TWO MAN RELOADING OPERATION (CONT)



DRIVER

- (1) When umbilical cable is connected to W32, J1 (and storage connector), move to LP/Cs that are to be loaded. Check that LP/Cs are ready to be loaded.
- (2) Remove skid quick release pins from skids at the bottom corners of each LP/C or M/LPA to be loaded. Remove skids.
- (3) If present, remove and discard the two plywood ignitor wire shipping protectors in accordance with local operating procedures.

- (4) For GMLAs, remove two forklift guides by removing lockpins.
- (5) Unbuckle and remove tiedown straps as required. Make sure the tiedown rings are folded flat against the frame upper surface.
- (6) When LP/Cs are ready to be loaded, move into position on side of SPL to help unhook the empty LP/Cs when they are unloaded.
- (7) Unlatch and swing SNVT storage compartment door out of the way.
- (8) Swing SNVT cover back out of the way and test umbilical cables as described.

TWO MAN RELOADING OPERATION (CONT)

WARNING

Short/no-voltage test is not good unless SNVT passes self-test. If SNVT SELF TEST green GO indicator light does not come on, SNVT has a fault. Stop cable Test immediately.

- (3) Press and hold SNVT TEST START switch. At the same time adjust LAMP BRT control until indicator lights SNVT are as bright as you want them.
- (4) Check to make sure that all indicator lights are on. (If all indicator lights are not on notify platoon leader immediately, then refer to Maintenance Instructions (Volume 1) and replace faulty indicator lamp.)
- (5) Release the TEST START switch. All indicator lights will go off for a few seconds. The SNVT SELF TEST green GO indicator light will come back on, indicating the SNVT self-test is good. A few seconds later the UMBILICAL TEST, RIGHT and LEFT GO indicator lights will come back on.

NOTE

If the SNVT NO-GO indicator light comes on, the SNVT self-test has failed and the SNVT has a fault.

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(6) If either the UMBILICAL TESTS red, LEFT NO-GO, or the RIGHT NO-GO indicator light comes on, umbilical cable test has failed. Notify your PLT/TP at once. Wait for further instructions.

CAUTION

Elevating LLM at some azimuths will cause open SNVT storage compartment door to hit engine housing and be damaged.

(7) After cables are tested, close SNVT cover. Close and latch storage compartment door.

(8) Move to position to direct unloading operation.

TWO MAN RELOADING OPERATION (CONT)

DRIVER

As soon as you get to the rear of the LLM, remove boom controller (BC) from storage compartment as follows

(1) Release both latches on BC storage compartment door and swing door open.

(2) Remove BC cable from storage compartment

(3) Unfasten strap-securing BC in the holder. Remove the BC.

CAUTION

Keep the BC storage compartment door closed. Elevating LLM at some azimuths will cause open BC storage compartment door to hit engine housing and be damaged.

Keep BC cable clear of equipment at all times. Be careful not to let cable get trapped under moving equipment or vehicle tracks and become damaged.

(4) Make sure cable is laying in slot in bottom of storage compartment. Close and latch storage compartment door.

(5) With BC, move to front of LLM and get into position to observe reloading operation.

NOTE

LDS turns off automatically when the LLM reaches the selected position. The LDS will startup again and turn off automatically when BC control switches are pressed and released.

(6) When LLM is in the selected position, check that BC ENBL indicator light comes on.

(7) Set boom selector switch to BOTH and wait for instructions from the S/C.

TWO MAN RELOADING OPERATION (CONT)

WARNING

Do not attempt to unload or load two loaded LP/Cs at the same time from side loading positions. This may offbalance the SPL and injure someone, or damage equipment. Refer to SPL Reloading Danger Areas (Volume 1).

CAUTION

When lifting LP/Cs up against boom carriages, make sure limit switch stops hoist motor. Do not try to operate hoist after LP/Cs are up against boom carriage, or hoist and cable can be damaged.

Make sure holddown latch handle is in unlatched position before lifting LP/C. Lifting LP/C with latch handle in latched position will damage bottom of LP/C and holddown latch assembly and/or carriage assembly and/or carriage assembly.

Ensure W18 (boom controller) cable does not lay on the ground under the carrier track. Movement of the carrier during unloading/loading can pinch or cut the cable.

NOTE

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If red baton (flashlight) is used for signaling during blackout operation no light means stop.

Hoist and boom controls will not operate unless umbilical cables are properly connected to LLM.

SECTION CHIEF

When in position to direct unloading and LLM is at offloading azimuth, signal driver to raise empty LP/C.

DRIVER

On S/C signal, press and hold HOOK UP switch until RP's are automatically stopped in place against boom carriages. Release the switch.

TWO MAN RELOADING OPERATION (CONT)

SECTION CHIEF

When LP/Cs are stopped against boom carriages, signal gunner to extend booms.

DRIVER

On S/C signal, press and hold BOOM OUT switch until both booms are fully extended and stop automatically. Release the switch.

CAUTION

When unloading an M/LPA with an unfired M39 missile, replace the skids. The W20 cable connector extends 1/2-inch below the M/LPA. If the M/LPA is placed on the ground without the skids attached, the connector can puncture the launch tube.

If unloading an unfired M39 missile, replace the skids before setting the M/LPA on the ground.

WARNING

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Extra care must be taken when unloading/loading M/LPAs. When suspended, an empty M/LPA has a 20-degree nose down attitude; a loaded M/LPA has a 12-degree nose up attitude.

When booms are fully extended, signal gunner to lower LP/Cs to the ground and then stop when hook cables are slack enough to unhook hoist hooks.

On S/C command, press and hold HOOK DN switch until LP/Cs are resting on ground and cables are slack enough to unhook hoist hooks. Do not unwind cable any further. Release the switch.

SECTION CHIEF (at right LP/C) and DRIVER (at left LP/C)

(1) Move to LP/Cs and unhook hoist hooks by grasping hook latch handle and latch locking bar. Squeeze the locking bar to release the latch. Lift the hoist hooks clear of the LP/C.

(2) When hook handles are raised enough for the locking Plates to clear the hoisting rod, pull hooks away from rod.

TWO MAN RELOADING OPERATION (CONT)

Loading.

CAUTION

Do not load a training LP/C with a tactical or practice LP/C. This could cause damage to the training equipment.

NOTE

Do not mix launcher loads with different lots of JED rocket **pods**; **and do** not mix launcher loads with different weapon types. The present software version will not allow mixed weapon loads. If different weapon types are loaded, the prompt ILLEGAL CONFIGURATION **will** be displayed.

SECTION CHIEF

(1) Before loading any MLRS ammunition, inspect ammunition for proper color codes. The color codes must match the weapon identification code received in a command message or end of mission (EOM) reload instructions. A four-digit DOD identification code (DODIC) is normally displayed to represent

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the weapons to be loaded; however, if the proper weapon software is not present in bubble memory, the weapon **J-Code** will be displayed instead of the DODIC. If the **proper** ammunition is not provided, stop operations and notify your section chief or platoon leader. Following is a list of all available MLRS ammunition by weapon code and weapon nomenclature. After the weapon nomenclature, a reference is given to the manual chapter or appendix where the color codes are shown.

WEAPON CODE NOMENCLATURE COLOR CODE (J-CODE/DODIC)

JED/HIO4 LPC, 298 Refer to Ammunition,
Millimeter: M26 Chapter 5

JEEIPL81 M/LPA: M39 Refer to Appendix G
(Army TACMS)

JEH/HI85 LPC: Reduced Range Refer to Ammunition,
Practice Rocket: M28A1 Chapter 5

TWO MAN RELOADING OPERATION (CONT)

CAUTION

If LP/Cs are stacked on a resupply truck, the front of the LLM will have to be raised so the booms or hooks will not hit and damage the loaded LP/Cs. Refer to Reloading From a Resupply Vehicle (paragraph 4-31) for instructions on additional steps required for loading off a resupply truck.

- (2) When both RP's are unhooked signal driver to raise hooks enough to clear the top of RP's.
- (3) When both hooks are raised enough to clear RP's that are to be loaded, signal driver to stop.

DRIVER

- (1) At S/C signal, press and hold HOOK UP switch until both hooks are clear of empty LP/Cs. (2) Release the switch.

CAUTION

To prevent damage to hoist assembly and LP/Cs, do not drag the LPCS. Hoist hooks should always be positioned as close as possible to directly over the LP/C hoisting rods. Never attempt to lift the LP/C if the hoist hooks are not positioned close to the

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hoisting rod. The maximum distance allowed is one-half the width of the LP/C. When LP/Cs are on the ground, this distance decreases in proportion if LP/Cs are on a RSV or RST.

SECTION CHIEF

Signal driver as required to position hooks directly over the loaded LP/Cs.

DRIVER

(1) At S/C signal, press and hold LLM CCW switch to move LLM in the direction of LP/C to be loaded.

SECTION CHIEF

(1) When hooks are over LP/Cs hoisting rod, signal driver to stop.

(2) Release LLM CCW switch.

TWO MAN RELOADING OPERATION (CONT)

(3) Check the position of the pulleys in the carriage hoist assembly to ensure pulleys are in the correct position for the type of rockets loaded into the LP/C.

CAUTION

Do not reposition hoist pulley assembly unless hoist hooks are lowered at least 1/3 meter. Do not reposition with LP/C suspended. Hoist pulley positioning assembly screw and crank could be damaged.

(4) When you are sure hoist upper pulleys are in the correct position, signal driver to lower hooks.

DRIVER

Press and hold HOOK DN switch.

SECTION CHIEF

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When hooks are in position over the LP/C hoisting rod and there is slack in cables, signal driver to stop.

DRIVER

At S/C signal, release HOOK DN switch.

SECTION CHIEF (at right LP/C) and DRIVER (at left LP/C)

- (1) Grasp hook latch handle and position hook locking plates against hoisting rod.
- (2) Squeeze the locking bar to release the latch. With a lifting and pushing motion, guide hooks forward until they clear the opened locking plates and fit into place under the hoisting rod.
- (3) Release hook latch handle and locking bar. Make sure the locking plates close and lock hooks in position on the hoisting rod.

TWO MAN RELOADING OPERATION (CONT)

WARNING

Do not attempt to unload or load two loaded LP/Cs at the same time from side loading positions. This may off balance the SPL and injure someone or damage equipment. Refer to SPL Reloading Danger Areas (Volume 1).

- (4) When both hooks are locked in place, stand clear of LP/Cs.

WARNING

Extra care must be taken when unloading/loading GMLAs. When suspended an empty GMLA(EALP) has a 20 degree nose down attitude; a loaded GMLA has a 12 degree nose up attitude

- (5) Signal driver to raise hooks.

SECTION CHIEF and DRIVER

WARNING

To prevent injury, you must not put hands or other parts of the body under hanging LP/C. Always watch out for LP/C skids, which may drop off after LP/C has been lifted.

An Army TACMS M/LPA dropped from any height must be inspected by the Quality Assurance Specialist-Ammunition Surveillance (QASAS) for disposition. A safe-to-ship M/LPA should be returned to an Army TACMS Missile Facility for inspection and/or repair. To prevent a possible handling hazard from a loose missile after a drop, the forward end of the M/LPA must never be tilted downward.

TWO MAN RELOADING OPERATION (CONT)

CAUTION

To prevent damage to hoist assembly and LP/Cs, do not drag the LP/Cs. Hoist hooks should always be positioned as close as possible to directly over the LP/C hoisting rods. Never attempt to lift the LP/C if the hoist hooks are not positioned close to the hoisting rod. The maximum distance allowed is one-half the width of the LP/C when LP/Cs are on the ground. This distance decreases in proportion if LP/Cs are on a RSV or RST.

When guiding LP/Cs up against boom carriage, make sure hooks seat properly against carriage. Misaligned hooks will not engage up limit switch and hook assembly will be damaged.

NOTE

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With pins removed, skids will normally drop off when RP or GMLA is lifted. If skids do not come loose, it may be necessary to stop raising RPs or GMLAs to let driver remove skids. Ensure the two forklift guides are removed from the GMLAs.

1. Move to front of LP/Cs.
2. Steady and guide the LP/Cs as they are lifted.
3. If necessary, remove skids or M/LPA forklift guides.
4. Guide the LP/Cs so that each one is positioned in the center of its boom carriage.

DRIVER

The hoist hooks cannot always be positioned exactly over the LP/C hoisting rods. To avoid a dangerous swing when the LP/Cs are **first** lifted, press and release HOOK UP switch quickly, in short pulses. This will let the LP/Cs be lifted a little at a time. LP/Cs can then be safely lifted up against the boom carriages.

(1) At S/C signal, press and release HOOK UP switch as required until LP/Cs are raised into position against boom carriage and then stop.

(2) When the LP/Cs are automatically stopped in position against carriages, release the switch.

TWO MAN RELOADING OPERATION (CONT)

SECTION CHIEF

(1) Check that LP/Cs are in proper position (centered) in carriage, all skids are removed, and tiedown rings flat against frame upper surface.

CAUTION

RP latch handle must be opened all the **way** and RP latch hooks in bottom of each bay lowered out of the way, **or** latch hooks and RP **will** be damaged.

(2) Check LLM and make sure latch hooks, inside each bay, are lowered out of the way. Check the bottom of the RPs to make sure the positioning pin holes and hook receptacle are not plugged with

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mud, ice, or other objects. Refer to RP Alignment Holes and Hook Receptacles, Cleaning paragraph 3-9 in Volume 1 of this manual. Resume loading procedures.

(3) Signal gunner to retract booms. As the booms are retracted and the RPs enter the LM, watch the blast shield doors at the top of the LM to make sure doors remain open. If a door should happen to be jarred shut, stop retracting boom and manually open door. Make sure to push up on the link that holds the door open so the door will stay open by itself.

At S/C signal, press and hold BOOM IN switch until booms are fully retracted and automatically stop moving. Release the switch.

SECTION CHIEF

When boom is fully retracted, signal gunner to lower LP/Cs.

CAUTION

To keep extra slack out of hoist cable, release HOOK DN switch as soon as LP/C is seated. Cables could become tangled.

TWO MAN RELOADING OPERATION (CONT)

DRIVER

WARNING

The gap between the top of a closed umbilical cable access door and a seated LP/C is small. To prevent injury to personnel, ensure hands of loading crew are clear of LP/C before pressing the HOOK DN switch.

(1) At S/C signal, press HOOK DN switch until LP/Cs are seated in place over positioning pins and on the bed of LLM.

NOTE

It may be necessary to use the BC to raise, lower, or turn the LLM to a level position to seat the LP/C on the pins.

- (2) When LP/Cs are seated, Release HOOK DN switch,

SECTION CHIEF

- (1) Check to make sure LP/Cs are properly seated.
- (2) Signal gunner to turn the LLM clockwise, to the right, so you can reach the LP/C latches, umbilical cables, and SNVT.

DRIVER

- (1) At S/C signal, press and hold LLM CW switch until LLM is turned far enough to reach the LP/C hold down latch handles, umbilical cables, and SNVT. Release the switch.
- (2) When LLM is in position, store BC and cable as described.

WARNING

Use care not to press BC switches when putting BC in bracket. BC is still enabled and can cause LLM or LP/Cs to move and hurt someone.

TWO MAN RELOADING OPERATION (CONT)

- (a) Unlatch and open BC storage compartment door. Coil BC cable into several small loops.
- (b) Open storage compartment door. Place BC onto the bracket provided on compartment door. Make sure that the holding strap is fastened properly.
- (c) Insert cable into storage compartment.
- (d) Make sure there will be enough room for BC when the compartment door is closed.
- (e) Close storage compartment door. Make sure cable will clear BC with door closed, and that both door latches catch.

NOTE

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The U.S. LOT NO. is on the upper center or upper left rear launch tube cover. The European LOT NO. is on the lower right rear launch tube cover. An example of a U.S. LOT NO. is VGT89LO03-121. An example of a European LOT NO. is DNM89K(TO2F284. If there are no lot numbers on the rear tube covers, move to the front of the RP.

- (3) Read and write down the first letter and the last three numbers of the LOT NO. shown on the left RP.
- (4) Read and write down the first letter and the last three numbers of the LOT NO. shown on the right RP.
- (5) Return to the M270 cab and wait for S/C to give command to stow.

SECTION CHIEF (at right LP/C) and DRIVER (at left LP"C)

While the gunner stores the BC, move to rear of LLM and perform short/no-voltage test and connect umbilical cables.

TWO MAN RELOADING OPERATION (CONT)

SECTION CHIEF

- (1) Unlatch and open SNVT storage compartment door and cover.

WARNING

Short/no-voltage test is not good unless SNVT passes self-test. If SNVT SELF TEST green GO indicator light does not come on, SNVT has a fault. Stop cable test immediately.

(2) Test umbilical cables as described.

(a) Press and hold SNVT TEST START switch. If it is necessary, adjust LAMP BRT control until indicator lights on SNVT are as bright as you want them.

(b) Release TEST START switch. All indicator lights will go off for a few seconds. The SNVT SELF TEST green GO indicator light will come back on, indicating the SNVT Self-test is good. A few seconds later the UMBILICAL TEST, RIGHT and LEFT GO indicator lights will come back on.

NOTE

If the SNVT NO-GO indicator light comes on, the SNVT self-test failed and the SNVT has a fault.

(c) If either the UMBILICAL TEST red, LEFT NO-GO, or RIGHT NO-GO indicator light comes on, umbilical cable test has failed. Notify your PLT/TP at once. Wait for further instructions.

TWO MAN RELOADING OPERATION (CONT)

WARNING

Do not connect faulty or untested cable to LP/C. Rockets may ignite and kill you. If you are in doubt retest the cables.

CAUTION

When a reload operation is completed, always connect umbilical cables to RPs. Leaving umbilical cables disconnected or connected to SNVT connectors (W32) and

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storage connectors allows hoists to be raised with RPs latched in place. Lifting RPs with RP hold down latches latched will damage hoist carriage and/or hold down latches.

- (1) Remove protective covers (shorting plugs) from electrical connectors on each LP/C.

CAUTION

When connecting or disconnecting umbilical cables, ensure that adapters are present on umbilical connectors. Umbilical cable lengths were determined with the adapters installed and connecting/disconnecting cables without adapters may damage the umbilical connectors.

- (2) Use care not to disconnect the umbilical cable from the adapter. Disconnect umbilical cable connector W19P2 (and W2OP2) from connector W32J1 (and storage connector). Disconnect umbilical cable connector W19P3 (and W2OP3) from connector W32J2 (and storage connector) on the SPL.
- (3) Connect umbilical cable connector W19P2 (and W2OP2) to LP/C connector J1 (and J2).
- (4) Replace connector covers on SPL connectors W32J1 (and storage connector) and W32J2 (and storage connector).
- (5) Close and latch umbilical cable access doors.
- (6) Close SNVT cover, then close and latch storage compartment door.

TWO MAN RELOADING OPERATION (CONT)

SECTION CHIEF (at right LP/C) and DRIVER (at left LP/C)

- (1) Pull LP/C holddown handles free from detent clip.
- (2) Swing handle out and to the left until it locks in place in latch handle latch. Connect the latch safety restraint hook to the latch handle.

SECTION CHIEF

- (1) As soon as LP/Cs are locked in place, signal gunner to stow LLM.

SECTION CHIEF / and DRIVER

(1) Return to M270 cab.

(2) As soon as the S/C signals, press the LLM STOW key. The LLM will start to stow. The azimuth and elevation resolver prompts will be displayed and will remain displayed until the LLM is stowed. At the same time, the prompt WEAPON PROCESSING IN PROGRESS will be displayed. If rockets are on board, the FCS will initiate a rocket fuze test. Once initiated, the azimuth and elevation resolver prompts will erase and the JED POD IDENTIFICATION menu and the prompt ROCKET FUZE TEST IN PROGRESS will be displayed; otherwise, the ROCKET STATUS field will be displayed.

(3) The JED POD IDENTIFICATION menu options list the three ranges of LP/C lot numbers that may be on board. Options 0 and 1 represent US lot numbers. Option 2 represents European lot numbers. Select the option number which encompasses the lot numbers of the LP/Cs currently on board. Both LP/Cs must be from the same range of lot numbers. Press the STORE key to store the data. This menu will remain on until an option is selected and stored. When the STORE key is pressed, the ROCKET STATUS field will be displayed.

(4) The rocket status field will tell you if the rockets have passed the fuze test. A fuze that failed the test will be indicated by the letter D under the number of the rocket that failed. If any rocket fuze fails the test, notify your S/C or platoon leader and wait for instructions. This field will remain on the display until INDEX key or SRP ALIGN key is pressed.